

REMARKS

Initially, Applicants thank the Examiner for returning a duly initialed copy of the Form PTO-1449 with the Office Action, indicating consideration of the documents cited in the Information Disclosure Statement filed May 22, 2002.

Applicants also thank the Examiner for acknowledgment of the claim of priority, and the receipt of certified copies of the priority document.

Reconsideration and withdrawal of the rejections of record are respectfully requested.

***Summary of Status of Amendments and Office Action***

In the present amendment, claims 1, 6, 7, 10 and 13 are amended, claims 2-5 and 14-18 are canceled and claims 19-26 are added. Therefore, claims 1, 6-13 and 19-28 are pending in the application with claims 1, 20, 23, 25 and 26 being independent.

In the Office Action, claims 1-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1-13 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps.

Claims 1, 3, 11, 14-15 and 17 are rejected under 35 U.S.C. § 102(b) as anticipated by Nakada (JP11046684).

Claims 1-2, 6-7, 9-11, 14-15 and 17 are rejected under 35 U.S.C. § 102(b) as anticipated by Naruse et al. (US Patent No. 4,110,477).

Claims 7-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakada (JP11046684) in view of Tamine et al. (Yoghurt Science & Technology).

***Explanation and Support for Amendments***

Applicants submit that each of the foregoing amendments is fully supported by the specification, e.g. pages 7-10.

***Response to §112, Second Paragraph Rejection***

Claims 1-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The rejection asserts that the phrase “mushroom ingredients-containing medium” is indefinite due to the phrase “mushroom ingredients.” The rejection asserts that mushrooms are a product of nature and are not composed of ingredients. Thus, the rejection asserts that it is unclear what is encompassed by the claim language.

In response, the Examiner’s attention is respectfully directed to the top of page 9 of the specification which discusses the obtaining of mushroom ingredients. Applicants respectfully submit that this disclosure is sufficient to “particularly point out and distinctly claim the subject matter which applicant regards as the invention.” Applicants also note that M.P.E.P. § 2172.05(a) states that Applicants may use new terms, where the meaning is stated in the specification. Applicants have defined the term mushroom ingredient in the specification, and the rejection should be withdrawn.

The rejection asserts that the term “mushroom extract” and the term “extracting” are indefinite. The rejection asserts that it is unclear what is being extracted from the mushroom, and that there are no procedural steps indicated in the claims or the specification such that one skilled in the art would be apprised of what constitutes a “mushroom extract.”

In response, Applicants respectfully submit that, contrary to the assertion contained in the rejection, one skilled in the art is well-versed in protocols for making mushroom extracts, and

would in fact understand what is meant by the term “mushroom extract.” Applicants note that the art cited by the Examiner in the form PTO-892 also contains these same terms. Specifically, the Office Action at page 4 notes that JP-11046684 discloses that “[a] mushroom extract is produced by grinding in water.” Further, JP 404030745 discusses the use of a “liquid component extracted from at least boiled mushroom.” And finally, JP 51057858 discloses a method of “extracting the mycelium of mushroom stock.” Thus, it is clear that one of ordinary skill in the art understands what is meant by the terms “mushroom extract” and “extracting.”

For these reasons, Applicants respectfully submit that the claims are not indefinite and the rejection under 35 U.S.C. § 112, second paragraph should be withdrawn.

Claims 1-13 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps. The rejection asserts that the omitted steps are those involved in the production of the “mushroom ingredients-containing medium,” and that the specification does not support the simple use of intact mushrooms. The rejection concludes that the step of grinding is known and straightforward, but that “extracting” is not.

In response, the Examiner is respectfully directed to page 9, which discusses the obtaining of the mushroom extract. Applicants respectfully submit that the steps asserted to be omitted are not essential, and are well within the scope of the teachings of the specification and the prior art. Furthermore, Applicants respectfully note that contrary to the assertion in the rejection, the term “extracting” is not indefinite, but is a known process, as discussed above. Therefore, the rejection is without merit and should be withdrawn.

The rejection notes that claim 1 does not clearly set forth that the “lactic acid strain” is a bacteria. Although Applicants dispute the accuracy of this assertion, the claims has been amended to read “lactic acid bacteria strain.” In making this amendment, Applicants do not

acquiesce to the assertion made in the rejection, but are merely attempting to decrease the issues and to advance prosecution of the application for early allowance of the claims. Applicants respectfully request that the rejection of claims 6 and 8 be withdrawn.

The rejection asserts that the phrase “bacteria in cold storage or heat-treated lactic acid bacteria” in claims 7 and 9-10 is indefinite. In response, Applicants have amended the claim to read “cold stored or heat treated lactic acid bacteria.” In making this amendment, Applicants do not acquiesce to the assertion made in the rejection, but are merely attempting to decrease the issues and to advance prosecution of the application for early allowance of the claims. Applicants respectfully request that the rejection of claims 7 and 9-10 be withdrawn.

The rejection asserts that the recitation of temperature ranges in claims 10 and 13 are indefinite. In response, Applicants have amended these claims using the language suggested in the rejection. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Finally, the rejection asserts that claims 15 and 17 are indefinite for the recitation of “effective ingredients.” Applicants note that claims 14-18 have been canceled, and thus, the rejection is moot. Applicants note that the cancellation of these claims was not made in response to the rejection, but was made to decrease the issues and to advance prosecution of the application for early allowance of the claims.

### ***Response to §§ 102 Rejections***

Claims 1, 3, 11, 14-15 and 17 are rejected under 35 U.S.C. § 102(b) as anticipated by Nakada (JP11046684). The rejection asserts that Nakada discloses the production of a fermented liquid mixture of *Enoki* mushroom extract with milk, water and sugar. The rejection asserts that the mushroom extract is produced by grinding the mushroom in water milk, or skim milk, sugar

and a lactic acid bacteria culture is added. The rejection asserts that the resulting product is a “compound yogurt food” and fermentation is stopped and the culture moved to a refrigerator, which would constitute aging as used in the claims.

In response, Applicants note that claims 14-18 have been canceled, and thus the rejection of claims 14, 15 and 17 is moot and should be withdrawn. Applicants have amended claim 1 to contain the limitations regarding the amounts of each component of the culture, specifically 0.1-10% by weight of mushroom ingredients from fruit bodied or mycelia of mushroom, 1-50% by weight of defatted milk, 0.1-20% by weight of sugar and the balance of purified water. Applicants have also added a limitation directed to the temperature and duration for the heating and cooling step, specifically heat-treating the homogenized medium mixture at a temperature ranging 75-110°C for 15-40 minutes, and cooling the heat-treated medium mixture to a temperature ranging 35-40°C. Applicants submit that Nakada does not teach or suggest the use of these limitations, and therefore, can not anticipate the claims as amended. Applicants respectfully request that the rejection of claims 1, 3, 11, 14-15 and 17 be withdrawn.

Claims 1-2, 6-7, 9-11, 14-15 and 17 are rejected under 35 U.S.C. § 102(b) as anticipated by Naruse et al. (US Patent No. 4,110,477). The rejection asserts that Naruse discloses a method for producing natto, containing lactic acid bacteria, water, sugar, skimmed milk powder and a homogenized suspension of mushrooms. The rejection asserts that the culture is added to steamed soybeans and incubated at 40-42°C for 18-20 hours and is then refrigerated and stored at 5-10°C.

In response, Applicants note that claims 14-18 have been canceled and thus, the rejection of claims 14-15 and 17 is moot and should be withdrawn. Further, Naruse does not teach or

suggest the claimed amounts of each component of the culture. Therefore, Naruse can not anticipate the amended claims, and the rejection should be withdrawn.

For the above-noted reasons, the rejections of claims 1-3, 6-7 and 9-11 under 35 U.S.C. § 102(b) should be withdrawn.

***Response to § 103 Rejection***

Claims 7-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakada (JP11046684) in view of Tamime et al. (Yoghurt Science & Technology). The rejection asserts that Tamime discloses standard procedures and knowledge in the art regarding lactic acid bacteria for fermentation of milk into yogurt products. The rejection asserts that it would have been obvious to one of skill in the art to utilize the teachings of Tamime for the incubation and culturing of *L. bulgaricus* within the ground mushroom-containing fermentation mixture of Nakada.

In response, Applicants note that neither Tamime nor Naruse teach or suggest the claimed amounts of each component of the culture. Therefore, the combination of Tamime and Naruse does not teach the claimed invention, and accordingly, the combination does not render the currently claimed invention, and the rejection should be withdrawn.

***Newly Added Claims***

Applicants assert that new claims 19-26 are similarly free of the prior art cited in the Office Action, as they contain limitations not taught or suggested in the documents. Applicants note that the Office Action at page 6 had noted that there was no teaching or suggestion of using *Ganderma* mushroom within the instantly claimed invention. The newly added claims do not

contain mushroom which were taught or suggested for such use in the prior art, and are allowable.

### CONCLUSION

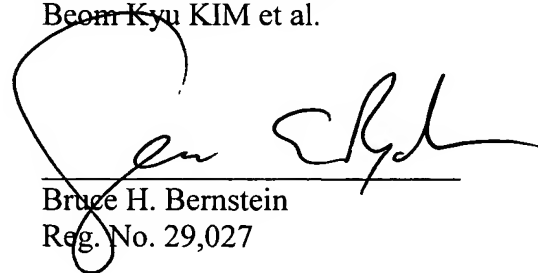
For the reasons advanced above, Applicants respectfully submit that all pending claims patentably define Applicants' invention. Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

Should the Examiner have any further comments or questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Amendment, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Beom Kyu KIM et al.



Bruce H. Bernstein  
Reg. No. 29,027

Reg No  
45905

June 8, 2004  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191